



SAFETY DATA SHEET

Tebuconazole 320 Captan 80 SC

Revision Date 03-Oct-2019

Version 2

Product No LSMF00009-S

Publish Date 03-Oct-2019

R-18161 9502115 MCW 607

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Tebuconazole 320 Captan 80 SC

Synonyms	Shamir, TEBU C
Pure substance/mixture	Mixture
Formula	SC

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Fungicide
Uses advised against	No information available

Details of the supplier of the safety data sheet

Supplier Address	ADAMA Makhteshim Ltd PO Box 60 Beer Sheva 8410001 Israel
------------------	----------------------------------------------------------------

For further information, please contact

Email address	SDS@ADAMA.COM
Emergency Telephone	

Emergency Telephone	ADAMA Makhteshim: + 972 8 6560800/801 ; + 972 8 6296713/714 ADAMA Agan : + 972 8 8515341
---------------------	---------------------------------------------------------------------------------------------

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Carcinogenicity	Category 2 - (H351)
Reproductive toxicity	Category 2 - (H361)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Label Elements

Hazard pictograms



Signal word

Warning

Hazard Statements

H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H332 - Harmful if inhaled
 H351 - Suspected of causing cancer
 H361 - Suspected of damaging fertility or the unborn child
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P201 - Obtain special instructions before use
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Weight-%	CAS No	EC No	GHS Classification	M-Factor
Captan	26 - 29	133-06-2	205-087-0	Acute Tox. 3 (H331) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Carc. 2 (H351) Aquatic Acute 1 (H400)	M=10
Tebuconazole	5 - 8	107534-96-3	403-640-2	Acute Tox. 4 (H302) Repr. 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=10

Section 4: FIRST AID MEASURES

First aid measures

General advice

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Consult a physician if necessary.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

No specific hazard known.

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Captan 133-06-2		STEL: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³	
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Captan 133-06-2		TWA: 5 mg/m ³		TWA: 5 mg/m ³	TWA: 5 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Captan 133-06-2	STEL 10 mg/m ³ TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³ STEL: 15 mg/m ³

Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand Protection

Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

Body Protection

Suitable protective clothing, Gloves made of plastic or rubber, Suitable protective clothing, Apron.

Respiratory protection

Use only with adequate ventilation.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly

after handling. Keep away from food, drink and animal feeding stuffs. Wash contaminated clothing before reuse.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: liquid		
Color	: Off-white		
Odor	: characteristic		
Odor threshold	: No data available		
pH	: 4 - 7.5		
Melting point/freezing point °C	: No data available		
Boiling point/boiling range °C	: No data available		
Flash point °C	: No data available		
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not Applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: No data available		
Vapor density	: No data available		
Relative density	: 1.16 - 1.202		
Solubility(ies) mg/l	: No data available		
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: No data available		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm ² /s 40 °C	: 98 - 371		
Explosive properties	: Not an explosive		
Oxidizing properties	: No data available		
Other Information			
Bulk density g/ml	:		
Surface tension mN/m	: Not Applicable		

Section 10: STABILITY AND REACTIVITY

Reactivity

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible Materials

No information available

Hazardous Decomposition Products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: >2000	Rat		
Dermal LD50 mg/kg	: >2000	Rat		
Inhalation LC50 mg/l/4h	:			No data available
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit		
Serious eye damage/eye irritation	: Irritating to eyes	Rabbit		
Respiratory/skin sensitization	: Skin sensitizer			

Chronic toxicity

Germ cell mutagenicity

Chemical Name

Captan : Not classified
 Tebuconazole : Not classified

Carcinogenicity

Chemical Name

Captan : Carcinogenic category 2
 Tebuconazole : Not Carcinogenic

Reproductive toxicity

Chemical Name

Captan : Not toxic for the reproductive system
 Tebuconazole : H361d - Suspected of damaging the unborn child

STOT - single exposure

Chemical Name

Captan : No information available
 Tebuconazole : No data available

STOT - repeated exposure

Chemical Name

Captan : Not available
 Tebuconazole : No data available

Aspiration hazard

Chemical Name

Captan : No information available
 Tebuconazole : No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity Fish 96-hour LC50 mg/l	:			No data available

Crustacea 48-hour EC50 mg/l	:	1.59	Daphnia magna	
Algae 72-hour EC50 mg/l	:	4.65		
Other plants EC50 mg/l	:			No data available

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Chronic aquatic toxicity				
Fish NOEC mg/l	:	No data available		
Crustacea NOEC mg/l	:	No data available		
Algae NOEC mg/l	:	No data available		
Other plants NOEC mg/l	:	No data available		

Terrestrial Toxicity

Birds Oral LD50 mg/kg				
Chemical Name				
Captan	:	>2000	Mallard duck	
Tebuconazole	:	1988	Bobwhite quail	

Bees Oral LD50 µg/bee

Chemical Name				
Captan	:	>100		
Tebuconazole	:	83.05		Oral

Persistence and degradability

Abiotic Degradation	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Water DT50 days			
Chemical Name			
Captan	:	<1	25 °C
Tebuconazole	:	365	

Soil DT50 days

Chemical Name			
Captan	:	0.44 - 1.09	aerobic 25 °C
Tebuconazole	:	34.8	

Biodegradation

Chemical Name			
Captan	:	No information available	
Tebuconazole	:	Not readily biodegradable	OECD 301B

Bioaccumulative potential

Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical Name			
Captan	:	2.57	pH 7; 25 °C
Tebuconazole	:	3.7	

Bioconcentration factor (BCF)

Chemical Name	
Captan	:
Tebuconazole	:

Mobility in soil

Adsorption/Desorption	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical Name			
Captan	:	No information available	No data available
Tebuconazole	:	769	Koc

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Improper disposal or reuse of this container may be dangerous and illegal.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Captan Tebuconazole)
Hazard Class	9
Packing Group	III
Marine pollutant	Yes
Special precautions for user	

RID/ADR

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Captan Tebuconazole)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	

ICAO/IATA

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Captan Tebuconazole)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Applicable



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H361d - Suspected of damaging the unborn child
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H331 - Toxic if inhaled
H318 - Causes serious eye damage
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer if inhaled

Revision Note

Changes made to the last version are labeled with this sign ***.

List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet